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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/791,064

03/02/2004

Jathan D. Edwards

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07/06/2007

EXAMINER

HUBER, PAUL W

ART UNIT

PAPER NUMBER

2627

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/791,064	<b>Applicant(s)</b> EDWARDS, JATHAN D.	
	<b>Examiner</b> Paul Huber	<b>Art Unit</b> 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 30-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 30-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claims 30 and 44-48 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 36 and 41-46, respectively, of copending Application No. 10/790,965. Although the conflicting claims are not identical, they are not patentably distinct from each other because: as noted by the Federal Circuit in *Eli Lilly v. Barr*, "[a] a patentable distinction does not lie where a later claim is anticipated by an earlier one" (see also *In re Berg* and *In re Goodman* which established that a later genus claim limitation is anticipated by, and therefore not patentably distinct from, an earlier species claim).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 44 and 48 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 42 and 46, respectively, of copending Application No. 10/790,970. Although the conflicting claims are not identical, they are not patentably distinct from each other because: as noted by the Federal Circuit in *Eli Lilly v. Barr*, "[a] a patentable distinction does not lie where a later claim is anticipated by an earlier one" (see also *In re Berg* and *In re Goodman* which established that a later genus claim limitation is anticipated by, and therefore not patentably distinct from, an earlier species claim).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim 30 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 12 of U.S. Patent No. 6,728,196. Although the conflicting claims are not identical, they are not patentably distinct from each other because: as noted by the Federal Circuit in *Eli Lilly v. Barr*, "[a] a patentable distinction does not lie where a later claim is anticipated by an earlier one" (see also *In re Berg* and *In re Goodman* which established that a later genus claim limitation is anticipated by, and therefore not patentably distinct from, an earlier species claim).

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Claims 30-49 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Patent No. 6,890,704. Although the conflicting claims are not identical, they are not patentably distinct from each other because: as noted by the Federal Circuit in *Eli Lilly v. Barr*, "[a] patentable distinction does not lie where a later claim is anticipated by an earlier one" (see also *In re Berg* and *In re Goodman* which established that a later genus claim limitation is anticipated by, and therefore not patentably distinct from, an earlier species claim).

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 30-34, 36-42 and 44-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki et al. (USP-4,947,384).

Suzuki et al. discloses a master disk (see col. 4, line 41 and figure 4), comprising : a master substrate 1; and a layer of photosensitive material 5 covering at least a portion of the master substrate 1, the photosensitive material 5 including a master pattern defined by adjacent master lands 3 and master grooves 2. Figure 2 discloses that the master grooves extend down to the master substrate, wherein the master grooves define master groove bottoms and the master lands define master land tops. Suzuki et al. further teaches that the track pitch is less than 425 nanometers and 700 nanometers by providing 1.6 micro inches, which converts to 40.64 nanometers (see col. 1, lines 49-67). Suzuki et al. further teaches that the width of the groove bottom is 0.8 micro inches, which converts to 20.32 nanometers, which value is greater than 35 percent of the track pitch (see col. 1, lines 49-67). Figure 2 teaches that the groove bottoms are flat and coplanar, while figure 3 teaches that the groove bottoms include sharp

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corners. Suzuki et al. further teaches that the depth of the groove is one eighth of the reading laser beam wavelength, thus inherently disclosing a groove depth within the claimed range based on the desired depth related to the laser beam wavelength (see col. 1, lines 49-67).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al., as applied to claim 34 above.

Suzuki et al. discloses the invention as claimed, but fails to specifically teach that the width of the groove bottoms are greater than 50 percent of the track pitch. Suzuki et al. rather teaches that the widths of the groove bottom is about 50 percent of the track pitch.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Suzuki et al. by providing the width of the groove greater than 50 percent of the track pitch as claimed. A practitioner in the art would have been motivated to do this for the purpose of providing an alignment which supports the preformat portion and the recording portion to decrease the read out error of the address signal and obtain a track crossing signal enlarged about a threshold value (see col. 4, lines 50-55).


Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al., as applied to claim 36 above.

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Suzuki et al. discloses the invention as claimed, but fails to specifically teach that the width of the groove bottoms is between 80 and 200 nanometers. Suzuki et al. rather teaches that the widths of the groove bottom is about 50 percent of the track pitch, which is about 20.32 nanometers.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Suzuki et al. by providing the width of the groove bottom to be between 80 and 200 nanometers, as well as proportionally increasing the track pitch. A practitioner in the art would have been motivated to do this for the purpose of providing wider alignment which supports the preformat portion and the recording portion to decrease the read out error of the signal.

Any inquiry concerning this communication should be directed to Paul Huber at telephone number 571-272-7588.



Paul Huber  
Primary Examiner  
Art Unit 2627

pwh  
June 25, 2007